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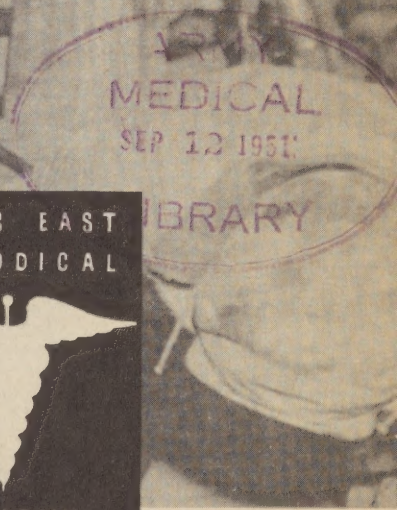
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THE SURGEON'S

# Circular Letter

VOLUME • VI  
NUMBER • 4  
1 APRIL 1951



A FAR EAST  
PERIODICAL



OF ARMY  
MEDICAL SERVICES  
INFORMATION

MEDICAL SECTION • GHQ • FAR EAST COMMAND

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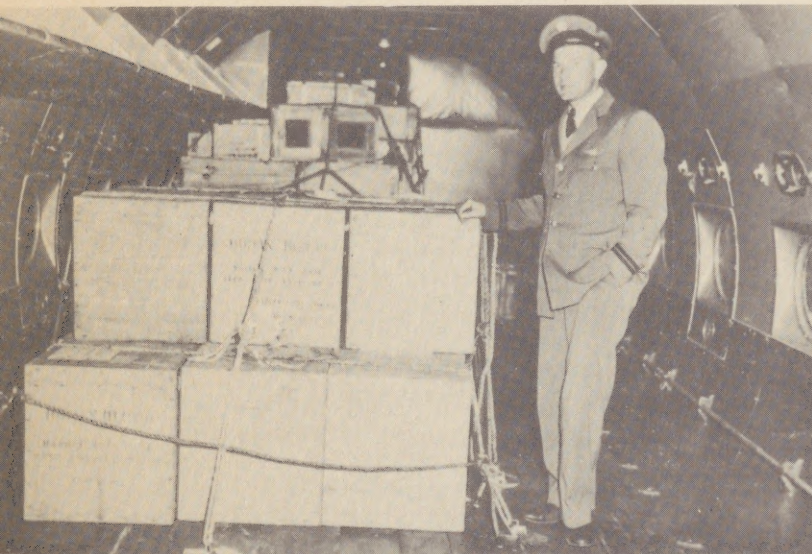
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Army officer gives blood. Most donations were made at the Tokyo Gen. Laboratory. Its travelling blood bank visited many parts of Japan.



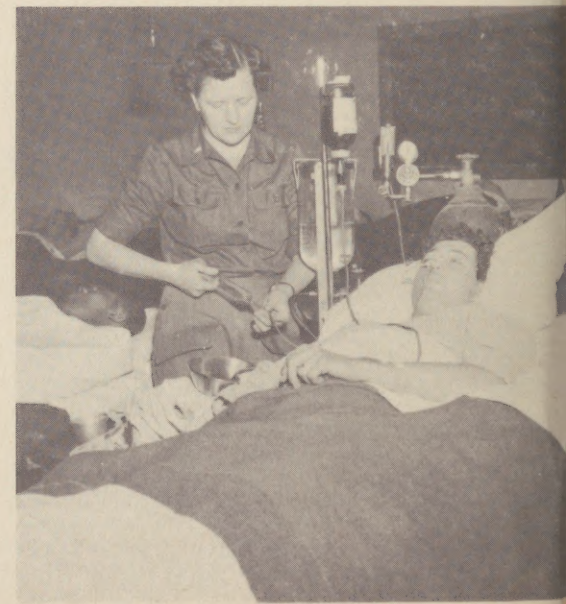
Most whole blood is flown to Korean battlefronts. This shipment was flown from U.S. to Japan in only 32 hours. It will soon be in Korea.



Technician selects blood for patient, Mob. Army Surg. Hosp, Korea



Wounded soldier receives blood plasma while being carried to medical aid aboard litter-jeep. Whole blood is much preferred to plasma, but the refrigeration necessary for its storage normally limits use to rearward medical installations.



Whole blood is given casualty at 4th Field Hosp.

**RESTRICTED**



THE SURGEON'S

# Circular Letter

Volume VI - Number 4  
1 APRIL 1951

General Headquarters  
Far East Command  
Medical Section  
APO 500

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### I. OSAKA MEDICAL CONFERENCE



Major General Raymond W. Bliss, Surgeon General of the United States Army, told an audience of more than 500 attending a medical conference 23-24 March at Osaka Army Hospital that the present health standard of the Army is at a higher level than at any time in military history.

The conference, a two day meeting of the Japan Chapter, Association of Military Surgeons of the United States, was sponsored by the Japan Logistical Command. It was the largest gathering of the Association ever to be held outside of the United States.

General Bliss is presently touring the Far East Command. This is his second visit since the outbreak of the Korean conflict, his previous tour having been accomplished in September 1950. Gen. Bliss remarked that great strides have been made since that time and that the people in the U. S. are proud of the excellent work being done by medical personnel in the Far East.

Prior to arriving in Japan, Gen. Bliss inspected Tripler Army Hospital in Honolulu. He informed the conference that 19,000 patients have been evacuated to the U. S. through Tripler.

"I have talked to patients at Percy Jones General Hospital in Battle Creek, Michigan," the General said, "who had been wounded at the Korean battlefront just a week before and were then resting in a United States Army Hospital."

"After each previous conflict there have been no 'physical monuments' to commemorate the magnificent efforts of the Medical Corps. But there is a different picture today. Money has been appropriated and plans are now being drawn for seven new military hospitals in the United States."

Major General Edgar Erskine Hume, Chief Surgeon, Far East Command, told the audience, "Our goal over here is to see that all troops under the United Nations Command receive the finest medical care possible. The treatment, rehabilitation and evacuation of casualties in the Far East Command have been speedier and more successful than ever before."

Medical personnel attending the conference included representatives of all branches of the service in the Far East.

Of particular interest to the gathering was the work being done at the Osaka Army Hospital, the



"cold injury" center for the command. "One of the most brilliant chapters in United States military history or any other country is being written here," commented General Bliss.

Among the many other speakers were: Brig. Gen. S. B. Hays, Surgeon, Japan Logistical Command; Col. Mary G. Phillips, Chief, Army Nurse Corps; Col. Allen A. Craig, Commanding Officer, and Lt. Col. Kenneth D. Orr, Chief, Cold Injury Section, Osaka Army Hospital; Dr. W. Paul Havens, Jr., Office of The Surgeon General, Washington, D.C.; and Lt. Col. Alice M. Gritsavage, Nursing Consultant, Medical Section, General Headquarters, Far East Command.

General and specific discussions were held on a wide range of subjects including infectious hepatitis, frostbite, unusual x-ray cases, psychiatric casualties, physiotherapy and the hospitalization and evacuation of military patients. Visits were made to various wards at the Osaka Army Hospital and the rehabilitation center at Nara.

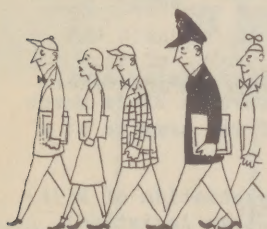
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## II. CHIEF OF ARMY NURSE CORPS VISITS FAR EAST COMMAND

Colonel Mary G. Phillips, ANC, Chief of the Army Nurse Corps, recently visited the Far East Command and inspected many medical installations throughout Japan and Korea.

Colonel Phillips was Chief Nurse, FEC, from July 1945 until January 1947, when she returned to Washington to head the Corps. Her primary purpose in making the tour, she said, was to observe the type of nursing care being received by the sick and wounded. She pointed out that the appearance and spirit of the patients she had seen was the best possible testimony to the type of care they were getting.

The Nurse Recruiting Program in the United States, Col. Phillips said, was progressing well and received impetus from the publicity attendant upon the 50th Anniversary of the ANC in February. But still more nurses are needed and these, she indicated, would be forthcoming because of the close liaison being maintained between the ANC, the American Nurses' Association and various state nurses' organizations.



## III. TRAINING OF ARMY MEDICAL SERVICE PERSONNEL IN CIVILIAN EDUCATIONAL INSTITUTIONS

The following extract from SGO Circular 22, dated 6 February 1951, is reproduced for the information of all concerned.

1. References: (a) SR 350-230-1, 30 Mar 49; (b) SR 350-20-1, 11 Oct 49; (c) SR 350-70-1, 12 Jul 49; (d) SR 350-230-20, 15 Apr 49; (e) SR 350-2300-10, 10 Jan 49.

2. Purpose of Program: The purpose of the Civilian Institution Training Program is to augment in-service training facilities and to provide a source for essential technical, scientific and professional training not available within the Service.

3. General Policies: The facilities of civilian education institutions will be used to train officers of the Army Medical Service, only to the extent necessary to meet carefully studied personnel requirements. In no instance will training be given for the sole purpose of raising the educational level of an individual. Specialized training, or deviations from approved programs of instruction, undertaken primarily for the attainment of a degree, including the preparation of a thesis which is not an essential part of an approved program of instruction is not in consonance with the established policies of the Department of the Army.

4. Definitions: a. Long Courses: Courses, or Programs of Instruction, of more than five (5) months duration, thus requiring a permanent change of station for enrollees. Long Courses are usually on a graduate level, i.e., leading toward an advanced degree.

b. Short Courses: Courses, or Programs of Instruction, of five (5) months or less duration attended on a temporary duty status. Short Courses are usually of a postgraduate nature and as a rule, are not creditable toward any degree requirements. Part-time courses extending over periods longer than five months are generally considered as short courses.

5. Eligibility Requirements: a. Long Courses - Eligibility for enrollment in Long Courses is restricted to officers of the Regular Army who possess a college degree and who volunteer for this type of training. Age limitations are set forth in paragraph 6c(c), SR 350-230-1, but may be waived in exceptional cases. Officers selected for enrollment in Long Courses will be required to sign a statement to the effect that they will not seek separation from the Service for a period of four (4) years following the completion of the course.



b. Short Courses - Eligibility for attendance at Short Courses is not restricted to officers of the Regular Army, nor is a college degree a prerequisite in every instance. Prerequisites for attendance at Short Courses are dependent upon the nature of the course.

6. Announcement of Courses: An announcement of the courses to be offered each year will be published annually by appropriate Department of the Army media.

7. Application Procedure and Selections:

a. Long Courses - It is the policy of the SGO to consider, during the month of February each year, all applications for Long Courses to be offered during the Fiscal Year beginning the following July. Applications for Long Courses beginning in the Summer, Fall or Winter of any year should be forwarded through channels, so as to reach the SGO, Attn: Personnel Division, not later than the preceding 1 February. Forwarding indorsements should not be perfunctory but should give a carefully considered estimate of the applicant's aptitudes, abilities and potentialities for the type of training desired. Applications are judged individually taking into consideration the applicant's academic background, experience, age, efficiency record and career pattern, to the end that selection and assignment is made only of those best qualified for advanced study. Applications received subsequent to 1 February will receive consideration provided training funds are available and training spaces (pipeline authorizations) have not been filled. Applications for Long Courses should include the following:

- (1) Title of course.
- (2) Length of course (semesters).
- (3) School of preference (indicate alternates if desired).
- (4) Brief biographical sketch including previous college education and experience.
- (5) Present assignment and duties.
- (6) Official transcripts of all previous college education
- (7) Certificate of intention to remain in the Service (see par 10 F, SR 350-20-1).

b. Short Courses - In order that all applications for Short Courses may receive equal consideration, applications for short courses beginning in each quarter of a Fiscal Year, will be considered as a group, during the month immediately preceding the beginning of the quarter. Applications for Short Courses must therefore, be forwarded, through channels, so as to reach the SGO, Attn: Personnel Division, not later than thirty (30) days prior to the beginning of the quarter in which the course will commence. Applications will include the following information:

- (1) Name, grade and service number of applicant.
- (2) Organization and station.
- (3) Title of course.
- (4) Name and address of institution conducting or sponsoring course.
- (5) Address where course will be given, if different from (4).
- (6) Name and address of individual in charge of registration for course.
- (7) Beginning and ending dates of course.
- (8) Tuition cost.

It is desired that requests for attendance at meetings of Technical, Scientific, Professional and other private organizations, not be submitted as applications for courses of instruction. Provision has been made for such attendance in General Orders No. 9, Department of the Army, 1950.

8. Enrollment: Admission and enrollment of officers selected to enter training at civilian schools will be arranged by the SGO. Officers applying for training may contact civilian schools to obtain information regarding prerequisites for enrollment and curriculum, but under no circumstances will applications for admission be filed with a school except by direct authority of the SGO.

9. Tuition, Thesis Expenses, Textbooks, Supplies and Equipment:

a. Tuition - All required fees incident to a course of instruction at a civilian school will be paid by the Department of the Army. Such fees normally include tuition, registration, laboratory, infirmary, library, and graduation fees.

b. Thesis Expenses - Officer students may apply for reimbursement for expenses incurred in connection with preparation (paper, typing, etc.) of an authorized thesis, under the provisions of SR 350-230-20, dated 15 Apr 49. Such reimbursements are limited to \$50.00, in accordance with established Department of the Army policy.

c. Textbooks and Expendable Supplies - Effective with Fiscal Year 1951, officer students pursuing Long Courses at civilian schools are authorized reimbursement, not to exceed \$80 per year, for required textbooks and expendable school supplies purchased in connection with their training.



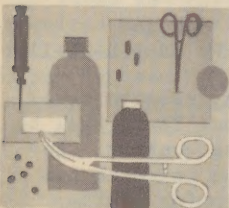
d. Nonexpendable Supplies and Equipment - Officers enrolled in Long Courses where non-expendable supplies and/or equipment, such as dental instruments, microscopes, etc., are required and where such items are not furnished by the school, may forward to the SGO, Attn: Education and Training Division, an itemized list of the supplies and/or equipment needed. This list will serve as a requisition which will be filled, insofar as possible, from normal supply channels.

10. Orientation: Selection of Curriculum and Subject for Thesis:

a. Orientation - Each officer selected for enrollment in a Long Course at a civilian educational institution, will be furnished with a copy of DA Pamphlet 20-101, "A Guide for Army Officers Attending Civilian Educational Institutions," dated July 1949. Further orientation, whenever indicated, will be accomplished by correspondence or by personal interview, as determined and arranged by the SGO.

b. Selection of Curriculum (Long Courses) - Whenever applicable officers selected for training will be advised as to the content of the curriculum to be followed. Where no special instructions are received, students will be expected to follow the established school curriculum of the program for which he is enrolled.

c. Selection of Subject for Thesis - In order that maximum benefits may accrue to the Army Medical Service from theses prepared in connection with the Civilian Institution Training Program, officer students pursuing courses which require the preparation of a thesis for the successful completion thereof are requested to coordinate the selection of a thesis subject with the Education and Training Division of The Surgeon General's Office.



IV. MEDICAL SUPPLY: INFORMAL REQUESTS AND UNAUTHORIZED PROCUREMENT OF MEDICAL SUPPLIES AND EQUIPMENT

There have been instances brought to the attention of the Medical Section, GHQ, FEC, since the onset of hostilities in Korea, wherein individuals (both commissioned and enlisted) of the Army Medical Service in the FEC have taken action through personal letter or other contact to procure medical items which are not immediately available. Some have gone so far as to take their own medical supply action in the form of an order on a ZI retail or wholesale supply house for new items or particular types of products to their individual liking. It is realized that the Armed Services Medical Procurement Agency cannot make available for field use recently marketed products, especially in the quantities desired. For this reason The Surgeon General has established a fund for the purchase, through authorized channels, of such items as they are required. This is the only desired method by which procurement of non-standard medical supplies and equipment may be made.

The control of the aforementioned informal and unauthorized supply actions will be most effective by proper supply training and indoctrination of all personnel in the Medical Service. The Medical Supply Officer of an organization is an integral part of his unit and though not professionally qualified in the practice of medicine and allied fields, is responsible for the control and maintenance of supplies. In the majority of cases, if he is presented with the doctor's needs, he either has the items on hand or is able to procure them with the least possible delay and cost.

Present operations in the FEC make it imperative that supply control and economy be exercised to the greatest extent possible. Sufficient publication has been made of this topic through official means so that prevention of waste of materiel and funds should be of paramount consideration to the using individual. If it is not, it should be made so at the insistence of organization commanders.

That the health of our Armed Services today has reached such a high standard is not only to the credit of our skilled and able doctors, but also of the personnel in the background whose sole service is in support of the medical program. The Medical Supply Officer is one of these many people. When supplies are needed he is best qualified to get them.

V. REPORT OF VETERINARY MEAT AND DAIRY HYGIENE INSPECTION (WD AGO FORM 8-134) - RECLASSIFICATION OF CERTAIN PRODUCTS AS PRODUCTS OF ANIMAL ORIGIN

The following extract from letter, Veterinary Division, Office of The Surgeon General, Department of the Army, 20 March 1951, is quoted for the information and guidance of all veterinary inspectors concerned:

"Attention is invited to paragraph 16 of SR 40-930-1, 'Veterinary Food Inspection,' dated 19 Dec 50, which interprets the term 'food supplies of animal origin' as those food supplies of which



animal products form a significant part or approximately 5 percent or more by weight.

"In view of the provision of the above-mentioned paragraph, the following products which were previously classified as products of non-animal origin are reclassified as products of animal origin:

1. Mincemeat (Code 109)

2. Noodles, Egg (Code 509)

3. Meringue Powder (Code 509)

4. Salad Dressing (Type A, Mayonnaise) (Code 509)

and the inspection responsibility for the above-named products has been assigned to the Veterinary Corps."

In view of this reclassification, the above-mentioned products should now be reported on WD AGO Form 8-134 under code numbers as indicated above.



VI. RECENT REGULATIONS AND TB MED OF SPECIAL INTEREST TO VETERINARY PERSONNEL

The following publications of special interest to veterinary personnel have recently been issued and should be requisitioned through normal AG publications supply channels:

SR 30-20-5: "Food Service, Procurement and Inspection of Perishable Subsistence" (15 Mar 51). Supersedes SR 10-117 (5 Sep 44). This regulation has just been published and is of considerable interest to the Veterinary Corps.

AR 40-90: "VC - General Provisions" (23 Oct 50). Supersedes AR 40-2005; AR 40-2010; and AR 40-2030.

AR 40-905: "Veterinary Service for Public Animals" (23 Oct 50). Supersedes Sec I; II; III; IV; and VI of AR 40-2035; AR 40-2055; and AR 40-2235.

AR 40-920;AFR 160-42: "Veterinary Laboratories" (4 Oct 50).

SR 40-920;AFR 160-43: "Veterinary Laboratory Service" (4 Oct 50).

TB MED 233;AFR 160-41: "Veterinary Laboratory Service - Food Analysis" (Oct 50).

AR 40-960: "Veterinary Forage Inspection" (23 Oct 50). Supersedes Sec V of AR 40-2035.

AR 40-980: "Veterinary Hospitals" (23 Oct 50). Supersedes AR 40-2065.

SR 40-940-5;AFR 160-65: "Communicable Diseases of Animals" (23 Oct 50). Supersedes AR 40-2090.

SR 40-930-1; AFR 160-7: "Veterinary Food Inspection" (19 Dec 50). (Supersedes TB MED 226 - "Veterinary Food Inspection Procedure, 28 Jun 47). This regulation furnishes veterinary personnel with information which will serve as an aid or guide in the application of the procedures involved in veterinary food inspection in the continental U. S. and overseas. All veterinary officers should become fully conversant with this regulation, and the suggestions and procedures contained therein should be adopted and followed whenever applicable.

SR 41-30-1: "Hygiene & Sanitation - Food & Beverages" (27 Nov 50).

AR 40-205: "Military Hygiene & Sanitation" (27 Nov 50).

AR 30-11: "Food Service Program" (29 Nov 50).

AR 880-10: "Utilization of Horses & Mules" (18 Dec 50).

TECHNICAL

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VII. NOTES ON THE USE OF ANAESTHESIA IN THE FEC

Colonel Frank E. Hagman, MC, Surgical Consultant, Med. Sec., GHQ, FEC

In February 1951, a questionnaire was sent to the anaesthesiologists in the FEC. This was done to obtain certain information regarding experiences pertaining to anaesthesia in this command. Thirteen (13) doctors responded most generously and several wrote at length in reply to the questions. A brief summary of the answers given follows:



QUESTIONS	ANSWERS
What are the indications you employ in administering curariform drugs?	<ul style="list-style-type: none"> <li>(1) Muscular relaxation for opening and closing the abdomen during laparotomy.</li> <li>(1) Endotracheal intubation only.</li> <li>(1) Muscular relaxation for opening and closing the abdomen, for certain cases of muscular relaxation of the extremities, and for endotracheal intubation.</li> <li>(1) To facilitate muscular relaxation in the upper plane of anaesthesia.</li> <li>(6) Muscular relaxation and endotracheal intubation.</li> <li>(1) Muscular relaxation, endotracheal intubation and occasionally laryngoscopy.</li> <li>(1) Muscular relaxation, controlled respiration, laryngospasm, and convulsion states such as tetanus.</li> <li>(1) Muscular relaxation, endotracheal intubation, "balanced anaesthesia", convulsive states, rectal surgery rarely.</li> </ul>
Do you use curare-pentothal or curare-pentothal-nitrous oxide-oxygen mixtures?	<ul style="list-style-type: none"> <li>(4) Not used.</li> <li>(4) Selected cases.</li> <li>(5) Used.</li> </ul>
If you use pentothal-curare or pentothal-curare-nitrous oxide-oxygen combinations, have you had any mortality which could be attributed to these agents either during the operation or post-operatively?	<ul style="list-style-type: none"> <li>(1) One respiratory failure - expired soon after return to post-operative ward.</li> <li>(1) Two fatal cases in which the agents may have been contributory in poor risk cases.</li> <li>(11) No mortalities.</li> </ul>
Are curariform drugs used by the nurse anesthetist? If the answer is yes, does the nurse anesthetist administer the drug independently or under the direct supervision of the anaesthesiologist?	<ul style="list-style-type: none"> <li>(10) Yes, under supervision.</li> <li>(2) Yes, usually under supervision.</li> <li>(1) Yes, except when unusually well-qualified.</li> </ul>
Do you believe pentothal-curare-nitrous oxide-oxygen anesthetic combinations should be avoided in freshly wounded patients suffering from blood loss?	<ul style="list-style-type: none"> <li>(1) Avoided except in selected cases.</li> <li>(7) Avoided.</li> <li>(5) Used when: Minimum standards for an anaesthesia met; Properly administered; Blood loss replaced; Trained anaesthetists; Adequate provisions for assisting respiration and preventing anoxia; Oxygen under pressure; No suspected bleeding in abdomen; Absence of myaesthesia gravis and asthma.</li> </ul>
Which anesthesia do you consider to be the safest to employ in battle casualties?	<ul style="list-style-type: none"> <li>(4) Nitrous oxide, oxygen, ether.</li> <li>(1) When not suffering from blood loss: pentothal, nitrous oxide, oxygen. With blood loss: ether, nitrous oxide, oxygen.</li> <li>(1) Induction: nitrous oxide, oxygen. Maintenance: ether, oxygen.</li> <li>(1) Induction: pentothal. Maintenance: ether, oxygen.</li> <li>(1) Ether, oxygen.</li> <li>(1) Cyclopropane first choice. Ether second choice when local and block anaesthesia not satisfactory.</li> <li>(1) Cyclopropane first choice. Pentothal-nitrous oxide-oxygen-curare second choice when blood loss replaced.</li> <li>(2) Cyclopropane.</li> <li>(1) None safest and best in all battle casualties.</li> </ul>



Has the workload of your hospital been so heavy at times that close supervision of the patient during the post-operative period was not adequate? Do you believe any anesthetic morbidity or mortality can be attributed to this?

- (2) Adequate usually.
- (2) Inadequate many times.
- (4) Adequate.
- (5) Inadequate at times. One fatality because of blockage of airways attributed to inadequate supervision. Morbidity such as atelectasis reported. Morbidity and mortality may have occurred.

Have your supplies and equipment been adequate for executing your mission?

- (4) Adequate generally.
- (9) Inadequate for brief periods when shortages occurred on one or more of the following: Curariform drugs; N<sub>2</sub>O shortages; Endoscopic instruments; Inflatable cuffs - endotracheal tubes; Insufficient suction machines; Soda lime; Half-empty ether cans; Laryngoscopes too large for UN other than US personnel; Dextrose ampules, 10%, for spinal pontocaine (1-164-603); Guidel rubber airways (3-002-000); Epi-nephine 1-1000 ampules; Pontocaine 1% 2 cc ampules; Anaesthesia machines.

Equipment and supplies required for anesthesia, including nonstandard items, which are not authorized as a component of T/A's, T/O&E's and AMEDS Equipment Lists may be requested on separate requisition submitted to the appropriate major command surgeon, accompanied by a letter of transmittal containing detailed explanation as to the need for the materiel.

The Surgeon's Circular Letter has taken the liberty of publishing excerpts from two representative letters received in reply to the questionnaire. It will be noted that one is from a mobile surgical hospital in Korea and the other from a fixed hospital in Japan. The material presented is worthy of careful perusal by surgeons, anaesthesiologists, and nurse anaesthetists of this command.

Excerpt from letter, Major Jesse F. Brown, MC, Anesthesiologist, 1st MASH:

"The answers to your questions are given in considerable detail. Some answers are qualified because I believe that the practice of anesthesia is largely an art and the safety of an individual procedure depends very much upon the skill of the anesthetist. Such factors as fatigue from long hours of work and the necessity to divide attention between two patients may make some procedures unsuitable for use in a hospital of this type which might otherwise be considered good practice.

"I employ curariform drugs in the anesthetized patient to obtain relaxation with minimum central depression of respiration. The same degree of relaxation can be obtained less quickly with ether by deepening the plane of anesthesia, and the effect upon respiratory volume is approximately the same. However, deep ether anesthesia depresses the central nervous system in contrast to curariform drugs which have their effect peripherally on the myoneural junction. No evidence has ever been found that curare has any effect upon the central nervous system. Following the use of general anesthesia, the patient often shows prolonged depression, but it is rare for prolonged peripheral relaxation to occur after use of curare. If such prolonged relaxation does occur, it is positive evidence that the patient has a masked form of myasthenia gravis.

"I apply the relaxing effect of curare as needed in the individual patient in the following conditions:

- a. To relax muscles innervated by cranial nerves before inserting an intratracheal tube. This effect is also useful in direct laryngoscopy, bronchoscopy and esophagoscopy, but opportunities for these latter applications have not occurred at this hospital. The dose of curare is small and the effect on skeletal muscle and the muscles of respiration is minimal.
- b. To achieve satisfactory abdominal relaxation prior to opening the peritoneum. The effect of the properly selected dose on the muscles of respiration is the same as third plane ether anesthesia.
- c. To establish relaxation of the abdominal muscles prior to closing the peritoneum.
- d. To assist in the management of a group of particularly difficult and troublesome cases. These include:

- (1) The robust, heavily muscular patient, who, because of muscle tone, becomes a problem in management, either because of active resistance or because under light anesthesia such procedures as reduction of fractures or dislocations are particularly difficult.



- (2) The heavily narcotized patient who either from active resistance or spasm from pain is difficult to aerate.
- (3) Patients with splinted respiratory muscles.
- (4) Patients with abdominal distention.

"This group of patients often has prolonged induction periods, exhibits excitement, requires restraint, and exhausts the anesthetist's physical endowment as well as his patience. The source of the difficulty lies in the patient's diminished respiratory exchange which slows down the absorption of anesthetic agents. We attempt to correct the underlying pathology prior to induction of anesthesia by the judicious use of premedication, intercostal blocks, Levin tubes and other measures. Then, early in the induction period a small dose of curare will reduce active or passive resistance. We facilitate augmentation of the patient's respiratory volume by squeezing on the breathing bag. The effect is entirely salutary and there is no other means to my knowledge which is as effective in managing these cases.

"Of equal importance with the positive indications are the contraindications to the use of curariform drugs. These are:

1. Myasthenia gravis. We are not likely to encounter cases of myasthenia gravis among Army personnel in a war theater.

2. Respiratory depression or embarrassment. This contraindication is only relative. Inasmuch as any form of deep anesthesia will result in diminished respiratory exchange, one might say that these patients are also unsuitable subjects for anesthesia. This fact is also well known and such patients are seldom subjected to elective surgery. When the surgery is directed toward correcting the pathological condition responsible for the respiratory embarrassment, the decision to use curare depends upon the individual case and the competence of the anesthetist to maintain normal respiratory exchange during its effect.

"One other limitation on the use of curare should be mentioned which is perhaps the most important of all. This is the competence of the anesthetist, his complete familiarity with its effects, and his preparation in advance, including availability of physical equipment, to actively manage the patient's respiratory exchange during the period of its effect.

"We use curare-pentothal and curare-pentothal-nitrous oxide-oxygen mixtures in the selected cases. Review of our case file reveals only four cases in which these combinations have been used.

Case 1: Abdominal exploration of Korean civilian under spinal anesthesia. It was anticipated that the exploration would be negative. A small perforation of the colon without peritoneal soilage was found and an exteriorization of the transverse colon was done. One hour and twelve minutes after induction of anesthesia, the patient was given pentothal intravenously because of developing restlessness. Four hours and three minutes after induction of anesthesia, a small dose of curare was given intravenously to aid in closure of the peritoneum. Anesthetic management of the case was satisfactory throughout the procedure and the patient made an uneventful recovery.

Case 2: The patient was given small doses of pentothal and curare intravenously for reduction of a dislocated jaw which was completed with ease. After 30 minutes observation the patient walked from surgery and was discharged from the hospital.

Case 3: An extremely large and muscular patient was brought to surgery for application of a spica cast because of simple fracture of the acetabulum, and dislocation. He was cooperative until intravenous pentothal was given when he became delirious and excited. Because of his extreme physical strength, it was practically impossible for the operating room personnel to hold him until a suitable dose of curare had been given intravenously. Thereafter, under pentothal anesthesia, the hip was reduced with ease.

Case 4: A patient with depressed skull fractures and suspected subdural hematoma was induced with pentothal and an intratracheal tube was introduced after a small intravenous dose of curare. Anesthesia was then maintained with pentothal and nitrous oxide-oxygen mixture in the ratio of two-to-one. A large skull flap was elevated. The patient had an excellent post-operative course.

"All of the above patients survived the operation and had excellent convalescence postoperatively until evacuated through channels or discharged from the hospital. There is no reason to believe that any of them developed any complications due to the choice of anesthesia.

"Not only should curare-pentothal-nitrous oxide oxygen combinations be avoided in freshly wounded patients suffering from blood loss, but pentothal as the principal anesthetic agent should be



avoided in these cases. It is well known that the incidence of death during anesthesia is greater under pentothal than under any other anesthetic agent. The pharmacological reasons underlying this fact are less well known. It has been demonstrated by animal experimentation that pentothal obtunds those homeostatic reflexes which arise in the carotid body. Also loss of circulating blood volume through hemorrhage is not reflected in proportionate changes in blood pressure and pulse rate. When these pharmacological facts are applied to the interpretation of anesthesia signs in human patients under pentothal anesthesia, it becomes apparent that the anesthetist is given a false sense of security because of the relatively level lines on the anesthesia chart as compared to the charting of signs under other forms of anesthesia in similar cases. It is reported that when dogs are bled to death under pentothal anesthesia, no changes in pulse or blood pressure occur until a sudden terminal event when the pulse stops and the blood pressure falls to zero. This experiment seems to parallel the occurrence of sudden death of human patients under pentothal anesthesia.

"When an agent which decreases respiratory exchange is used as an adjunct to anesthesia, with pentothal, it is expected that anoxia and carbon dioxide excess with disturbance in acid-base balance may occur. When a gas mixture is added to the combination of pentothal and curare in which the oxygen content may fall below 20% the stage is set for an anesthetic accident. In criticizing this mixture of anesthetic agents, I want to make it clear that I point the accusing finger at pentothal sodium and not at the curare or nitrous oxide. Their addition to the procedure merely makes it possible to extend the use of an imperfect agent to a wider variety of cases. That this combination of agents may be successfully used depends upon proper selection of patients and upon the art and attention of the anesthetist in constantly maintaining the patient's respiratory exchange at a level equal to his normal minute volume. The use of this technique demands the constant individual attention of the anesthetist to one patient. I personally feel that the type of duty which we perform at this hospital makes the use of curare-pentothal-nitrous oxide-oxygen combination of value only in rare cases.

"The safest anesthesia to employ for battle casualties is undoubtedly closed system inhalation anesthesia with ether. Ideally, every wounded patient would be given this form of anesthesia. However, we work under anything but ideal conditions. Our work load becomes so great that at times one anesthetist must administer and supervise anesthesia for three cases simultaneously. This is accomplished by choice of anesthesia technique and scheduling of cases so that individual attention to a single patient does not monopolize the time of the anesthetist. We employ regional anesthesia with procaine wherever possible, local infiltration for minor cases, spinal anesthesia for low extremity cases, pentothal or pentothal and nitrous oxide for very short procedures, and reserve general anesthesia for abdominal, chest and head cases, and for cases with multiple wounds. We consider preoperative blood replacement an essential part of the preparation of a patient for spinal anesthesia, and strive to keep blood replacement equal to operative blood loss in all cases. We have had no operative deaths which could be attributed to anesthesia.

"We consider ourselves very fortunate to have well-trained anesthesia personnel which makes possible the diversification of techniques. If we were employing the help of partially trained anesthetists, the increased safety of ether in wounded men would become more apparent. I firmly believe that ether is the safest anesthetic in the hands of the novice.

"We have worked under a severe handicap so far as anesthesia personnel is concerned and have accepted it as a matter of course because we believed all the other hospitals in Korea had the same problems. It would seem that there are only two speeds at which our hospital works. Either we have no work at all or we work at maximum capacity with the pressure of new cases arriving faster than we can operate them. At times we keep three operating tables going for periods up to 48 hours and recently we have been operating four tables simultaneously. With a regular anesthesia staff of one anesthesiologist and one nurse anesthetist, the case load per anesthetist is high and double duty is the rule rather than the exception during periods of stress. We need very badly another anesthesiologist and another nurse anesthetist.

"Until recently when a second doctor joined our service, close supervision of patients in our Recovery Ward was a dream, the realization of which appeared to be remote. Now, it is nearer to fact. When we get another nurse anesthetist, it will, indeed, become a fact and we will undertake a greater share of responsibility in resuscitation and shock therapy, particularly in managing derangements of the respiratory system. Our patients are evacuated so soon following surgery that minor complications from anesthesia might be overlooked. We have not had any serious complications and no patients have died because of neglect during this period. Our Recovery Ward is equipped with oxygen and a portable electric suction apparatus, and a set for treatment of respiratory emergencies is kept constantly available in surgery. We are also equipped to do therapeutic bronchoscopy when indicated. However, the best of equipment amounts to nothing better than good intentions unless the persons best able to use it are available to do so.

"Our equipment and supplies are at present entirely adequate for executing our mission. We



discovered deficiencies during our staging period in Yokohama and corrected them and we had to replace losses after our Inchon landing. The most notable deficiencies were procaine hydrochloride and soda lime. We were initially supplied with only enough procaine tablets to make a few cc's of procaine solution, and ampules of spinal procaine which would make another small volume of solution. One item of supply which we have been unable to obtain is inflatable cuffs for intratracheal tubes. These are not listed as standard supply in the Joint Army-Navy Catalogue. Another item of supply which we have been unable to procure is injectable benadryl. If these items have been added to a recent change in the catalogue or can be obtained as non-standard items we would appreciate assistance in ordering them."

Excerpt from letter, Major R. J. M. Zeluff, MC, Chief of Anesthesia, Osaka Army Hospital:

"In a discussion of this kind it seems pertinent to recall it is seldom clearly demonstrated that one anesthetic agent insures protection against fatality, while another is hazardous. The wisdom of typing any particular anesthetic to a general situation, considering the various kinds of battle wounds which may be associated with blood loss, seems questionable. After all, the basic pharmacological effects of the drugs are not altered fundamentally when given to a patient, even though he may be suffering from hemorrhage.

"There is, perhaps, too much attention placed on the choice of anesthetic and too little on the dosage and method of administration. Since the dose of an anesthetic required to produce a desired effect is governed by the state of metabolic activity of the patient it is immediately apparent that a shocked patient requires only small amounts of anesthetic to produce adequate anesthesia.

"The shocked patient is best cared for by the anesthetist concentrating his efforts on blood replacement, maintenance of an adequate airway, good oxygenation, and adjustment of the level of anesthesia to its optimum level, that is, compatible with surgical requirements and safety of the patient.

"Both pentothal and ether may be given with safety to shocked patients provided they are given with care, facility, and due regard to the degree of depression in the patient.

"The following are answers to the specific questions.

"My indications for the use of curare are:

- a. To obtain adequate relaxation for direct laryngoscopy and intubation.
- b. To obtain relaxation for abdominal surgery in a light plane of anesthesia.
- c. To obtain relaxation in certain resistant subjects during general anesthesia.
- d. Occasionally it is used as an adjuvant agent in so-called "balanced anesthesia." By this is meant small amounts of curare will reduce the amount of pentothal and nitrous-oxide required in long anesthetics.
- e. It is used in the rare rectal case where spinal is contraindicated and a general anesthetic is required.
- f. To control convulsive states, such as occur in tetanus.

"Curare-pentothal are never administered alone but always in conjunction with nitrous-oxide-oxygen mixtures. Since pentothal depresses the respiration centrally, and curare depresses respiration peripherally through its action on the intercostal muscles, serious hypoxia may result unless adequate means are taken to prevent its occurrence. The oxyhemoglobin content of the blood is markedly reduced under pentothal anesthesia so that oxygen should always be administered simultaneously.

"I have had no mortality which could be attributed to the agents under discussion, but in two cases may have been contributory to deaths on the operating table. Both patients were classified poor risks prior to surgery.

"These patients were intubated with pentothal-curare-oxygen, then switched to ether. In the first case, a gas-bacillus infection of the leg, following deflation of the pneumatic tourniquet forty minutes after anesthesia began, the patient suddenly died. The autopsy was entirely negative.

"In the second case, a gunshot wound of the arm, chest, liver, adrenal, kidney and spine, some 48 hours following the injury, it was decided to operate this man because he presented a picture of internal bleeding. He was severely jaundiced even in this short time. At the completion of surgery, some 3 hours after the anesthetic was begun, the patient died. He presented a picture of respiratory center depression. I do not believe any one agent or factor could be incriminated in these cases.

"Yes, curariform drugs are used by nurse anesthetists under my supervision. Since some nurses are not familiar with the use of curare a special effort is made to determine the capabilities of



each new nurse anesthetist with this potent drug. When I am convinced of their ability they are allowed to use the drug independently. It might be well to add that Major Stone or myself is present on all anesthetic problem cases.

"It is my opinion that pentothal-curare-nitrous-oxide-oxygen anesthesia should not be avoided in freshly wounded patients suffering blood loss providing:

- a. Blood has been replaced and is available during surgery.
- b. The patient meets minimum requirements for any general anesthetic.
- c. Adequate provisions are available for the administration of oxygen under positive pressure.
- d. An anesthetist is present who is skilled in the use of curare and able to perform rapid tracheal intubation.
- e. Contraindications such as myasthenia and asthma do not exist.
- f. There is no suspected bleeding in the abdomen requiring surgery. In these cases I have purposely avoided using pentothal curare combinations except when rapid intubation is mandatory for the following reasons:
  - (1) When the peritoneum is opened there is a sudden decrease of pressure in the abdomen, together with a loss of blood lying free in the peritoneal cavity. When a large amount of blood is lost here it is often difficult to maintain an adequate blood pressure.
  - (2) We are told that curare occasionally causes severe circulatory depression. (I have never seen this, but am cognizant of it.)
  - (3) The combination of factors here could conceivably depress the circulatory system to such an extent that irreversible changes would ensue.

"Since I have avoided using these agents under above conditions, my experience is limited. In the abdominal case previously mentioned as having died on the table, although there was 600-800 cc's of free blood in the peritoneal cavity, the circulatory system did not appear to be affected.

"There is no particular anesthetic agent one should say was the safest in all battle injuries.

"It has been said that the safest anesthetic is the one with which the anesthetist is most familiar. Today, however, more trained men are available in this field, and these specialists should be equally competent with a majority of agents and methods.

"In those installations where an anesthesiologist is present it seems regrettable that all anesthetic agents, generally acceptable to the medical profession, are not made available, as a part of the anesthetic armamentarium.

"My reference, of course, is particularly to cyclopropane. Time will not be taken here to discuss this agent, but I feel very sincerely that it is a fine anesthetic agent and should be made available to the armed services.

"Since no particular agent meets the requirements of the safest or best anesthetic in all battle casualties, we must classify the safest agent according to the area of involvement.

- a. Wounds of the head and neck: Endotracheal anesthesia with pentothal, curare, nitrous oxide, oxygen.
- b. Wounds of the upper extremity: Brachial plexus block is preferable, or a general anesthetic using any standard agent.
- c. Wounds of the chest:
  - (1) Without pneumothorax: Either block or pentothal-nitrous oxide-oxygen.
  - (2) With pneumothorax: Endotracheal ether-oxygen, or cyclopropane-oxygen.
- d. Wounds of the abdomen: As a rule general anesthesia is preferable. Endotracheal ether-oxygen is my choice.
- e. Wounds of the lower extremities: Spinal anesthesia is preferable. If the level is kept below dorsal 10, serious circulatory depression should not occur. As a matter of interest, we have observed that gas-bacillus infection of the lower extremities have withstood surgery better using spinal anesthesia even though it was often mechanically difficult to administer the agent."





# VIII. TREATMENT OF POISONING BY BARBITURIC ACID DERIVATIVES Colonel Francis W. Pruitt, MC, Medical Consultant, 3HQ, FEC

Cases of varying degree of severity of barbital poisoning have been encountered from time to time in this command. Generally they are only mild and respond to ordinary nervous system stimulants. Occasionally, however, cases are encountered in which the individual has ingested large amounts of one of the barbital compounds. The plans of therapeutic management vary with the individual physician and the stimulant used. The following regime is considered practical and thorough in cases of poisoning due to the barbituric acid drugs. We have found this plan useful and easy to carry out.

## METHOD OF TREATMENT:

A standard method of treatment of barbiturate poisoning was established and followed in all cases in the Tokyo Army Hospital. This consisted of certain preliminary procedures common to all groups, followed by coramine and picrotoxin.

## ROUTINE TREATMENT:

1. A history was taken and physical examination was done, and an attempt made to identify the drug ingested. Whenever possible the prescription numbers were checked and the drug established. Members of the family were sent for to determine the amount of the drug in the patient's possession, if known.
2. In all cases the stomach was aspirated with a large bore rubber tube, and washed with four to five liters of tap water, the organ being left empty. The washings are saved and sent either to the hospital laboratory or to the 406th Medical General Laboratory. The patients were then catheterized and the urine also sent for toxicological examination. (In all cases included in this report, barbiturates were found either in the stomach contents or urine, or both.)
3. An intravenous infusion of glucose and saline was started. Plasma was given to those in shock. The patient was put in a mild Trendelenberg position.
4. An airway was inserted where needed.
5. Bronchoscopy was done immediately wherever aspiration of food was suspected.
6. Frequent aspirations of the nasopharynx were done in comatose cases to maintain an unobstructed airway.
7. a. Coramine Therapy. 10 cc of 25% coramine intravenously stat, followed by 5 cc every 5 minutes for the first hour. Thereafter, intravenous drip, allowing 5 cc. per hour. In profound cases, booster doses of 5 cc every 15 or 30 minutes may be added as indicated. This therapy to continue until patient responds to stimuli. We have used up to 60 cc. of coramine intravenously in the first two hours.  
b. Picrotoxin Therapy in conjunction with Coramine Therapy. A test dose of 3 mgm. given intravenously stat. If no response, the 3 mgm. dose is to be repeated every 5 minutes for 3 doses, allowing 15 minutes to elapse, and another series of 3 injections at 5 minute intervals. Therapy is to be continued in this cyclic manner until the return of reflexes or spontaneous motion. Sodium amytal should be on hand to treat convulsions.

The following table based on the degree of severity may be useful:

Grade	Conscious	Tendon Reflex	Corneal Reflex	Swallowing Reflex	Pupils	Coma
1	Yes	Yes	Yes	Yes	Normal	No
2	Semi	Yes	Yes	Yes	Constricted	No
3	No	Absent	Yes	Absent	Pinpoint	Yes
4	No	Absent	Absent (*)	Absent	Pinpoint	Deep

(\*) The most important differential of a grade 3 from a grade 4 is the loss of the corneal reflex. This was found to be a sign of a poor prognosis.

## REFERENCE:

Watts, Joseph C., and Ruthberg, Jack: Coramine (nikethamide) in barbiturate poisoning; comparison with picrotoxin: preliminary report, Annals of Internal Medicine, 1948, xxix, 1104.





## IX. JAPANESE B ENCEPHALITIS

Consultants Division, Medical Section, GHQ, FEC

Japanese B encephalitis has been a definite problem for American forces particularly in Korea, and in Japan and Okinawa on a smaller scale. In Japan there were 10 cases and 2 deaths in 1949 and in Okinawa there were reported 3 cases with 1 death during the same year. During 1950, a total of 357 cases of clinically diagnosed encephalitis were reported from military and occupation forces in the Far East. Of this number, 311 with 29 deaths resulting were reported from U.S. military personnel in Korea; 30 with 5 fatalities from personnel in Japan; and 16 with no deaths from Okinawa. (The figure of reported cases is arbitrary to the extent that the differential diagnosis between encephalitis,

poliomyelitis, Guillain-Barre syndrome, and other neurological conditions were not clear in all instances. The numbers reported here are those accepted at this time as having most probably been cases of virus encephalitis.) A sufficiently high proportion of these cases were confirmed by specific laboratory procedures to indicate that the large majority were in all likelihood the result of infection with the Japanese B encephalitis virus. Unquestionably, however, some of the cases and most likely those occurring well out of the usually accepted Japanese B encephalitis season were based on other etiologies. Of the 16 cases reported from Okinawa, only 2 were confirmed by significant complement fixation antibody titre rises.

There is now good evidence that Japanese B encephalitis is transmitted by mosquitoes. Based on present knowledge three species of the genus *Culex* (*C. tritaeniorhynchus*, *C. pipiens* and *C. quinquefasciatus*) appear to be the most important vectors. However, it is entirely possible that other species of mosquitoes may also serve as vectors of this disease. Mosquito control then is the most important procedure for the prevention of Japanese B encephalitis. This control can only be effected through rigid application of area, unit, and individual procedures including the elimination of breeding areas where feasible, larviciding, adult mosquito control, screening, use of bed nets and protective clothing, and repellents. The pertinent provisions of GHQ, FEC Circular No. 59, 15 November 1950, are applicable to this program. It is to be stressed that vaccination is not a substitute for mosquito control in the prevention of Japanese B encephalitis.

The protective value of Japanese B encephalitis vaccine has not been definitely determined; however, the available evidence indicates that the vaccine does offer some protection and its use for occupation personnel is considered desirable. Accordingly, in addition to mosquito control, vaccination is to be accomplished as an additional preventive measure.

The following personnel in Japan, Korea, and Okinawa should be vaccinated:

- a. All U. S. military personnel including Army, Air Force, and Navy ashore.
- b. U. S. civilian employees.
- c. Dependents of above personnel on voluntary basis.

Japanese B encephalitis vaccination is recommended and vaccine is available for other UN military personnel, civilian employees and dependents, with the exception of ROKA and KATUSA whose naturally acquired immunity is preferable to that afforded by vaccination.

Vaccinations on Okinawa are to begin not later than 1 May 1951; in all Korea and in Japan, south of and including Osaka and Kyoto, on or about 15 May 1951; and in the remainder of Japan on or about 1 June 1951.

The following categories of personnel should not be vaccinated:

- a. Transients including crews of ships and aircraft.
- b. Personnel departing the Far East Command prior to 1 July.
- c. Children less than six months of age.

The quantity of vaccine being made available by the DA should be sufficient for the indicated needs if proper care in conservation procedures is practiced. It is particularly important to maintain proper storage and distribution temperature of two to five degrees Centigrade (35 to 41 degrees Fahrenheit). The vaccine is furnished in dry form. Instructions for rehydration furnished in the package should be carefully followed. It should be remembered that the rehydrated material is particularly unstable; should be kept in the refrigerator when not in actual use, and all unused portions of an ampule are to be discarded at the end of the day. Each ampule contains sufficient material for 20 doses and, whenever possible, the scheduling of groups for vaccination and preparation of vaccine for use should be planned accordingly.

Rehydrated vaccine is administered for original immunization in three doses of one (1) cc each, injected subcutaneously. Standard intervals between doses are one week between first and second, and one month between first and third. Persons receiving two or more doses of Japanese B encephalitis vaccine previously should be given one dose of one (1) cc only, administered at the time



other personnel in the area are receiving their third or final dose. Children between six months and one year of age should receive one-half of the adult dose at the discretion of the medical officer performing the immunization. Japanese B encephalitis vaccine is to be administered in the FEC and to replacements through West Coast staging areas. Arrangements have been made to administer the first two doses of Japanese B encephalitis vaccine to replacements enroute to the FEC prior to debarking from the West Coast. This group will receive their final immunization in accordance with the above plan, except that if arrival in the FEC is after 15 June, the third dose may be administered as soon as one week after second dose. Regardless of interval since last dose, the remaining dose or doses of the series will be administered and the entire series will not be repeated. Those arriving in Okinawa after 1 June and in Japan and Korea after 15 June without having started their series will receive full course of three doses of the vaccine at intervals of 2 to 4 days between doses. Vaccination series begun prior to 15 September will be completed. No Japanese B encephalitis vaccination should be initiated after that date.

Since Japanese B encephalitis vaccine is prepared by cultivation of the virus in eggs and contains a certain amount of egg and chicken protein, it should not be administered to those with a history of sensitivity to egg or chicken. Each person to be vaccinated should be asked the question, "do you eat egg and chicken?" If the answer is "no", the presence or absence of sensitivity should be determined by further questioning. If a state of sensitivity is considered to be present, a statement to that effect should be entered on the immunization register and the vaccine should not be administered. No skin tests with the vaccine for desensitization procedures should be attempted.

It is very important that proper records of vaccination be made on both the individual and record copy of the immunization register (WD AGO Form 8-117). AR 40-215 should be referred to for instructions in the entry of records and maintenance of the immunization register. The status of Japanese B encephalitis vaccination in each U.S. Army division or separate unit should be submitted each month, May through September, in the Essential Technical Medical Data Report.

In accordance with the provisions of GHQ, FEC Circular No. 5, 11 Feb 50, laboratory confirmation should be requested on all viral encephalitides. Although no laboratory methods of practical value for the diagnosis of poliomyelitis are now available, it is felt that some benefit is to be gained by ruling out Japanese B encephalitis in such cases particularly during the epidemic period. Procedures include virus isolation, complement fixation and neutralization tests. Virus isolation is attempted on brain tissue obtained at autopsy. For this purpose at least two blocks of cerebrum should be removed under reasonably sterile conditions and shipped in sterile buffered glycerin prepared as follows:

1. Citric acid 21 gms to 1,000 cc double distilled water.
2. Anhydrous  $\text{Na}_2\text{HPO}_4$  28.4 gms to 1,000 cc double distilled water.
3. Take 9.15 cc of 1 above and 90.85 cc of 2 above to make 100 cc of buffer solution pH7.4.
4. Mix equal parts of 3 above and C.P. glycerin; half fill cork-stoppered specimen bottles and sterilize at 15 pounds of steam pressure for 30 minutes.

The complement fixation test is an application of the Wasserman technique using an antigen prepared from infected mouse brain to determine the presence of specific antibodies in the patient's serum. The neutralization test is a measure of the protection afforded when patient's serum and varying dilutions of virus are incubated and then titrated by injection into mice. In both the complement fixation and neutralization tests, no arbitrary diagnostic level can be set for any one specimen, particularly in vaccinated individuals. For diagnostic purposes, a demonstration of a definite increase in antibodies is required. Based on past experience, it is felt most desirable to examine serum collected as early in the disease as possible and in addition on the 21st and 35th days of the disease. All such virus studies in this command are performed at the 406th Medical General Laboratory and specimens should be forwarded by the most expeditious means to the installation. Refrigeration of specimens with wet ice is desirable.



#### X. MEDICAL EVALUATION OF THE NON-EFFECTIVE SOLDIER Colonel Albert J. Glass, MC, Psychiatric Consultant, GHQ, FEC

The purpose of this article is to clarify the function of the medical officer in the management and disposition of the non-effective soldier. Non-effectiveness as defined herein is restricted to individuals without physical and mental disease but who demonstrate inadequate duty performance. More specifically, this communication refers not to disabled soldiers, but to individuals who either by virtue of poor attitude and motivation or personality disorders, are a disciplinary problem or a handicap to their organization. Non-effectiveness is usually manifested by either symptomatology (such as backache, headache and fatigueability), or disciplinary difficulties (which include alcoholism and drug addiction).



While most disciplinary infractions are handled by direct administrative action, it is common practice to refer less overt instances of non-effectiveness to unit medical officers and military hospitals. This occurs because of the quandry of the line officer who feels insecure in dealing with soldiers who may belong in the realm of mental and physical disease. There exists also the unconscious and sometimes conscious desire of unit commanders for medical evacuation to rid them of vexing problems and thereby avoid the more difficult and time-consuming administrative procedures. Frequently, the medical officer is aware of the problems of the line officer and is in sympathy with his dilemma. The indefinite boundary between symptoms and disease may be utilized by both line and medical officers as a basis for medical evacuation. They argue convincingly to themselves that the individual very probably has something wrong with him and anyway, he is of no value to the outfit. This line of reasoning is even more true where the field of mental abnormalities is concerned. The unit commander can easily rationalize that the alcoholic, the drug addict and the aggressive disciplinary offender must have some kind of mental illness, otherwise he would not act in such an abnormal manner. Regardless of motives, the line officer does need medical support to help him arrive at a medical solution in the disposition of the ineffective soldier. In order to properly render such support, it is necessary that medical officers become familiar with the mechanisms and causes of non-effectiveness in the military service.

Non-effectiveness represents a failure of adjustment to a given situation. Man cannot remain static but must have the ability to alter his methods of obtaining gratification and his goals in accordance with the realities of a changing environment. The degree of adjustability among individuals varies considerably; there are persons who can adjust in only a limited manner under specified conditions. For example, a soldier may be effective only at a certain type of work when stationed near San Antonio, Texas, where he can see his wife and mother daily. Others have the ability to sustain themselves in an effective manner in the stressful environment of severe combat. Again there are individuals with severe personality defects who cannot adjust under any circumstances and exhibit a life-long pattern of repeated failures.

To consider only the role of the individual is insufficient to explain fully the struggle involved in adaptation. One must take into account the nature and severity of the various external stresses imposed upon the person in order to appreciate that adjustment is the end result of an interaction between a particular personality and specific environmental forces. The exigencies of military service place a strain on the adjustment resources of the soldier. A civilian can find a niche for himself and maintain a relatively constant environment. The soldier must be prepared and able to function efficiently under conditions which vary from frequent changes of unit commanders, overseas separation from his loved ones, and the uncomfortable and hazardous life of combat.

Another pertinent environmental factor is the motivation of the military unit. It is usual for soldiers to identify with others in their group. The newcomer soon assumes the ideals and attitudes of his organization. Units with poor morale do not require effective performance by the individual and do not support each other in times of stress. Organizations with high morale insist on efficient standards of duty and in this way sustain each other in overcoming adversity. Leadership is the most important single factor in the production and maintenance of unit morale. The officer who is ineffective as demonstrated by his overt insecurity or unfair and neglectful treatment of his men, adds further stress to the already difficult milieu of the soldier. The good leader supports the soldier and enables him to initiate and maintain effectiveness under severe adverse circumstances.

The basis for medical recommendations in the management and disposition of the non-effective soldier can be best demonstrated by considering the usual problems encountered by individuals of various personality types. The following division of individuals into separate groups should not be taken in a finite sense but for descriptive purposes corresponds to the relative degree of personality dysfunction:

THE AVERAGE SOLDIER: The average soldier has a relatively stable personality and can adjust effectively even under severe stress when he is in a unit with good morale. There may be occasions when he becomes temporarily disorganized but his adjustment faculties are sufficiently elastic for him to resume his previous adaptability promptly. Good leadership facilitates this adjustment process.

More pertinent are the avoidable circumstances which may produce non-effective behavior and performance even by the average soldier. Such difficulties are usually the result of faulty functioning of command and range from unfair treatment by the unit commander to the malassignment of individuals to positions for which they are unsuited from the standpoint of training and intellectual endowment. The resultant ineffectiveness may be exhibited in the form of unwillingness, mild disciplinary infractions, and vague symptoms such as headache, tension and insomnia. Under such continued adverse circumstances, the individual loses his ability to feel as one with the group and blocks his inner insistence to conform, since he feels he is being treated unjustly.



This state of affairs can be recognized by the medical officer because of good performance record even under adverse conditions prior to his current difficulties. The medical officer must be cautious in evaluating the administrative complaints of soldiers, yet unmistakable evidence of mismanagement is usually elicited from the often dispirited, mildly hostile, and depressed soldier. It is important for the medical officer to communicate his findings to the unit commander outlining the causative factors and recommending that remedial action by him is indicated. It is not necessary or even desirable to state specifically the type of remedial action. This falls more properly within the province of the line officer.

THE UNWILLING SOLDIER: The unwilling soldier is a poorly motivated individual who can perform effectively only by virtue of outside insistence. This type of individual is intolerant to the attendant discomfort experienced by everyone when forced to make an adjustment under conditions which are disagreeable. He is easily influenced by gripes and rationalizations which convince him that his situation is intolerable. Essentially he is a selfish person who can see no reason for enduring hardship when there is no personal gain involved. Such a feeling is present in all of us, but in the average soldier there is an insistent inner demand and self-pride which forces him into a spirit of cooperation. The unwilling soldier lacks this inner demand to conform. It follows that external pressure must be substituted in order to make him perform adequately. The unwilling soldier often presents himself as being unable to perform duty because of physical complaints. The medical officer can arrive at a proper evaluation after a reasonable physical examination, a history of over elaboration of external difficulties, common to all, and a background which indicates previous attempts to avoid onerous tasks. The recommendations of the medical officer should include the diagnosis of no diseases, poor attitude and motivation, with the information that the individual has the capacity to perform adequate duty. The line officer is then free to apply remedial measures and to feel secure that he is not doing an injustice to the individual.

THE IMMATURE SOLDIER: The immature soldier is characterized by a retarded emotional development which is not commensurate with chronological age and physical growth. The result is an individual who exhibits ineffectual, childish, or adolescent behavior when exposed to slight or moderate environmental stress. Almost anyone may temporarily demonstrate immature behavior under the impact of severe external pressure. The immature person with a limited capacity for adjustment is more readily influenced by fluctuations in the environment; in effect, he is as if internally crippled and therefore unable to alter and sustain himself under varying circumstances. Basically, the personality defect lies in the inability of the immature individual to either mobilize or adequately discharge aggression when such an adaptation is necessary for effective action.

There are various types of immaturity reactions, dependent mainly on the manner in which aggressive impulses are manifested. Perhaps the most common variety is the passive dependent personality. This type of person is illustrated by the timid, passive, fearful soldier who seldom fires his rifle at the enemy; faints at the sight of blood; shies away from physical fights and even verbal arguments, and is readily rendered helpless when under dangerous stimuli. Here we see clearly the effects of almost complete inhibition of aggressive drives, usually, the result of severe intimidation during the early formative years of life. The passive dependent person is rarely a disciplinary problem and often gives effective performance in garrison duty or in a protected overseas assignment. He may have an excellent military record prior to the current stressful situation. Depending on the degree of passivity in the character make-up, many of this immaturity type can be helped to a more aggressive adaptation by such measures as training, with a consequent increase of confidence in himself and his weapons; group identification, which gives emotional support to lessen his inner feelings of insecurity and makes it possible for him to assume the aggressive attitude of the unit; and individual guidance by NCO's and officers who by advice and example demonstrate a more logical approach to danger than trembling and helpless inaction. Individuals with a severe personality difficulty of this type may only be able to perform noncombat duty.

The next common type of immaturity is the passive aggressive individual. He is also conspicuous by the absence of outward manifestations of aggressiveness but demonstrates some degree of hostility in the form of stubbornness, procrastination, and obstructionism. This type of person may appear resentful but denies such feelings, usually stating that he cannot work because of headache or backache. He denies to himself feelings of insecurity and finds superficial rationalizations for his ineffective performance under stress. The passive aggressive soldier may also have had a previous good record when under minimal stress. He is different from the unwilling soldier in that there is an absence of words or actual acts of aggression. This points to the real defect in the personality and indicates that any evaluation and recommended corrective measures must be oriented along the lines of overcoming excessive insecurity by support and training as outlined under the passive dependent type.

Least common is the aggressive personality. These individuals are quite tense when under stress because of marked insecurity. Uncoordinated and ineffective aggressive outbursts may result from



the consequent accumulation of tension. These explosive outbreaks are seldom directed against the enemy but usually occur against a friendly and safe environment. It is similar to the tantrum of childhood which may be effective at that age in gaining an objective but is far from an adult adjustment. Here again evaluation and management must be based on the degree of severity of the personality defect and similar measures are indicated to help the individual overcome his underlying excessive insecurity.

A special form of immaturity is that exhibited by individuals with enuresis. This may be combined with other manifestations of immaturity or exist as a single phenomenon. Essentially, enuresis is an infantile or childish manifestation of hostility which recurs in adult life when external danger makes it difficult if not impossible for them to utilize later acquired aggressive adaptations. It is common for the enuretic to give a history of bed-wetting often up to 13 or 14 years of age after which there is a spontaneous cessation with recurrences at various stressful times in their adolescent and adult years. This archaic mechanism of hostility is usually unconscious to the person. Threats and coercive action rarely have any corrective value. The important principle of how effective the individual functions even with this habit should be the criterion for reassignment or release from service under 615-369. Enuretic soldiers in combat have a difficult problem because it is impossible to change clothing. Individuals in rear and support units where laundry service and washing facilities are readily available can often continue rendering adequate duty, particularly since the enuretic habit may be less frequent when the environment is more secure. Discharge from the service should be considered when enuresis is combined with other manifestations of a severe degree of personality disorder.

THE ABNORMAL SOLDIER: The abnormal soldier or the pathological personality has such severe defects or distortions of character that he represents the largest deviations of behavior from the average soldier. This type of person is usually incapable of consistent effective adjustment even under favorable conditions. The environment plays a negligible role in the adjustment process because the basic difficulty is inherent in the individual who is unable to obtain gratification of his needs except by means and methods considered abnormal or frowned upon by society. Included in the pathological personalities are antisocial individuals, asocial or the criminal group, the withdrawn or schizoid personality, the drifters or inadequate personalities, the narcotic and alcohol addicts, and the sexual deviates. It is evident that while abnormal soldiers have in common pathological personality traits, it would be an error to consider them a homogenous group. They are rather a mixture of several dissimilar smaller groups, each one having its characteristic internal disharmony and external manifestations. A brief description of the various types of pathological personalities follows:

The antisocial personality: This soldier is characterized by repeated but relatively minor disciplinary episodes. He rarely commits a major offense such as desertion or murder. Alcohol excesses on and off duty are common. His life pattern is replete with similar antisocial events, none of which have merited a long prison sentence. He is restless and cannot be satisfied by the usual pleasurable methods. He is unable to feel the loyalty to a person, group or code. It is characteristic for him not to profit by experience or punishment as he seemingly does not possess the inner motivating force of conscience. Often he is quite mentally agile and appeals to the unwary to give him another chance. For brief periods of time, he can do even superior work and may in this manner continue on in military life because of his ability to convince others that he will do better in the future. When in disciplinary difficulty, he pleads amnesia or physical illness in an effort to enlist the aid of the medical officer. He is well known to the psychiatrist as "a psychopath" and valiant efforts by expert therapists usually result in failure.

The asocial personality: This is the individual who completely disregards the moral code. He constitutes the hardened criminal type and is commonly seen in penal institutions. Rarely does he voluntarily enter military service and usually makes every effort to avoid induction by the draft. As a result, this type of abnormal soldier is seldom encountered by the medical officer unless for mental evaluation prior to general court-martial.

The schizoid personality: This is an odd individual, eccentric and exclusive, who lives in a small world of his own and is disturbed by association with others. He compensates for human companionship by day dreams and fantasies. Others soon learn to leave him alone when their overtures are passively rebuffed. He is the most effective of the pathological personalities as often he can perform consistent, useful duty if not bothered, or placed in a solitary technical position. He becomes a problem when dislocated from his narrow environment. Once disturbed, it is difficult for him to regain his previous adjustment. At best such individuals can be utilized in only a selective limited manner because their capacity for adjustment is minimal.

The inadequate personality: This is a rather well-known abnormal soldier who is conspicuous by his failure to respond adequately to the physical, emotional and mental demands of the environment. Like an infant, he is helpless and usually gives a variety of bodily complaints to explain his shortcomings. He has a life-long pattern of inadequate performance, although in civilian life



he may have made a marginal adjustment in a menial or part-time job. He is a drifter as he moves from place to place and from job to job in a vain effort to find someone who will take care of him. Frequently he voluntarily enters military service in the hope that he will be provided with the necessities of life with few demands upon him. If married, there is a helpless dependency on his wife. He is seemingly only effective in the production of offspring. Inevitably, this type of individual has an Army record of being tried on every type of work in his unit. He is seldom a disciplinary problem except in a minor way from alcohol excess or being late to work. Usually he is not hostile as he protests repeatedly that he has chronic back trouble or a persistent stomach disorder which he justifies by a long history of repeated hospitalizations and medication to confirm his story.

The alcohol addict: The alcohol addict must be differentiated from the temporary alcohol excesses of the average, the unwilling and the immature soldier. In effect, alcohol for the addict is a way of life. He can point to no actual frustrating or situational difficulty. His defect lies in an inability to lead an average existence and to be gratified by the usual objects in his environment. Like an infant, he is only satisfied and happy when he has a bottle in his mouth and when his stomach is full. He may do excellent work for periods of time which in his younger days may have been as long as one year. As he becomes older, his attempts to gain pleasure from the usual environmental sources become less and less effective. Not infrequently, he may give the appearance of a genial, generous and friendly person. When intoxicated, he pleads for sympathy and willingly agrees to any type of treatment, but this is only temporary and passes when the need for alcohol again occurs. He vexes his family and friends and infuriates his military superiors as he habitually fails to fulfill his solemn promises of remaining sober. Popular science publications have given the impression that alcohol addiction is a disease. This is readily seized upon by the unit commander who is desperately trying to transfer or otherwise dispose of the problem, and the addict who always pleads for another chance when he is involved in a disciplinary difficulty. Both want the medical officer to be responsible for different reasons. In truth, alcohol addiction is not a disease but the individual's way of treating himself, of substituting the bliss of intoxication for the onerous and often boring details of daily existence. Treatment of this mal-treatment is repeatedly demonstrated to be doomed to failure. Treatment of the underlying character defect is seldom desired by the addict. The only effective treatment thus far is Alcoholics Anonymous which substitutes another way of life for the addict. In this connection it is interesting that this regime is only effective if the addict maintains an active participation in the group. When he becomes inactive or disinterested, he returns again to the alcoholic way of life. It should be realized that the problem of alcoholism is a large one for the entire country. Constant efforts are being made to improve our knowledge and management of the causes and effects of alcoholism. The opinions stated above represent only a small aspect of the problem which affects military efficiency.

The narcotic addict: What has been stated under "alcohol addiction" applies to narcotic addiction except in a more severe degree. The narcotic addict is not infrequent in this command because of the low cost and easy access to opiate drugs in certain areas of Japan and Korea. The narcotic addict is even a weaker individual than the alcohol addict in his inability to tolerate the usual discomfort of even garrison existence. He uses opium derivatives which have a more devastating effect upon the body than alcohol. The physical craving for the drug may be so strong that he will abandon his ethical code and stoop to any act to obtain the drug. He is a particular menace in military life since he is prone to initiate young and susceptible soldiers in the path of addiction. Treatment is mainly unsuccessful unless rigidly controlled by incarceration for long periods of time. Such a regime may salvage the beginner in addiction, but rarely if ever changes the confirmed addict.

The sexual deviate: This abnormal soldier does not obtain sexual gratification by the various usual methods but finds it necessary to practice perversion of some type. In the vast majority of cases this consists of a desire for an individual of the same sex. The sexual deviate is an unfortunate and usually unhappy person who presents an age-old problem, the cause of which has its roots in the early formative years of childhood. It should be noted that the medical officer may be unable to arrive at a diagnosis in many of the cases referred to him because objective signs are not present and the history as given by the subject may be unreliable. Suspicion by others and effeminate mannerisms do not warrant a conclusion which may be unjust. In general, the service of the abnormal soldier is unsatisfactory and undesirable. Current AR 600-443 provides administrative methods of discharge from the service.

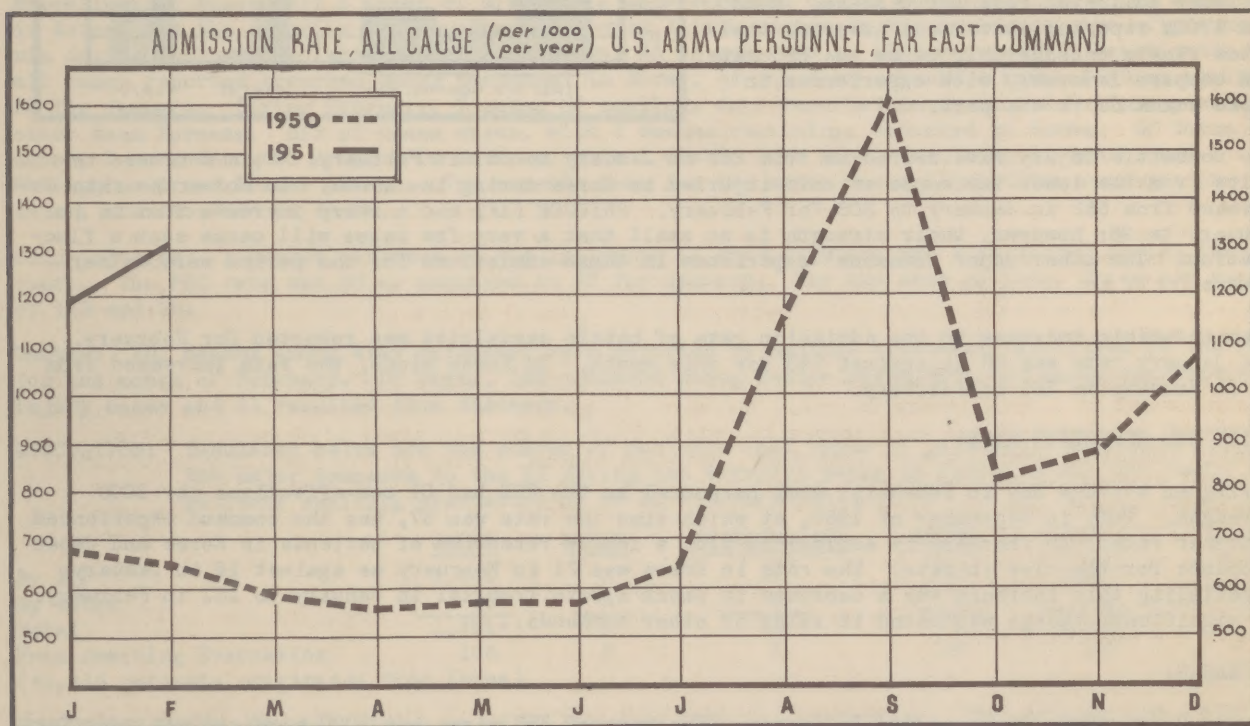
Disposition of the abnormal soldier: The abnormal soldier presents a difficult management and disposition problem. He is not psychotic from the clinical standpoint and is not insane in the legal sense. While he does have severe and unconscious intrapsychic pathology, he is only distressed or uncomfortable when blocked by outside sources from gratifying his desires. Therefore he is not considered to have a mental illness, although there is undoubted psychopathology. Rarely can he be salvaged or altered by psychiatric treatment even by the most expert clinical



facilities. Coercion, threats, punishment, pleas and exhortations have little permanent effect. Imprisonment may satisfy the needs and demands of society but serves to intensify the internal difficulties of the pathological personality and may occasionally cause a transient psychotic outburst. Years of experience with the abnormal soldier has taught the military that, as a rule, it is unprofitable to continue his service. He is considered to have habits and traits of character undesirable for military service and administrative channels for his separation are provided under AR 615-368. It is interesting to note that civilian authorities have had no better success than the Armed Forces in salvaging or altering the pathological personality. However, in civilian life abnormal individuals have less restriction which allows them to continue their non-effective and abnormal behavior relatively unnoticed except when their activities are of a criminal type.

**SUMMARY:** This article is concerned with the function and responsibility of the medical officer in the matter of ineffective soldiers who are not disabled by physical or mental disease. The basic causes and mechanisms of the various types of non-effective individuals are outlined. It is reiterated that the medical officer is required to give support in the form of recommendations to the line officer for handling and disposition of such referred individuals. The medical officer is not responsible for the accomplishing of remedial or administrative action and should not utilize medical facilities for the removal and disposition of the non-effective soldiers.

## HEALTH OF ARMY TROOPS, FEC



Admission rates per 1000 troops per annum, Army personnel, for the 4-week period ending 23 Feb 51 were as follows:

	FEC	JAPAN	KOREA	MARBO	PHILCOM(AF)	RYCOM
All Causes	1313	684	1639	395	383	555
Diseases	850	636	970	324	285	510
Injuries	221	48	306	71	98	45
Battle Casualties	243	0	363	0	0	0
Psychiatric	33	26	38	0	9.8	6.4
Common Respiratory Diseases and Flu	155	117	183	66	49	5.1
Primary Atypical Pneumonia	5.8	2.3	7.5	0	0	3.9
Common Diarrhea	12	1.7	18	0	0	0
Bacillary Dysentery	.69	0	.95	0	9.8	0
Amebic Dysentery	.53	0	.79	0	0	0



Malaria, new	.90	.96	.79	0	20	0
Infectious Hepatitis	26	9.6	35	0	20	7.7
Mycotic Dermatoses	.85	0	1.3	0	0	0
Rheumatic Fever	.63	.58	.71	0	0	0
Venereal Diseases	114	173	85	0	59	208

#### ALL CAUSES ADMISSION RATE:

During February, Army personnel of the FEC were admitted to hospital, quarters and dispensaries for all causes at a rate of 1313 per 1000 per annum as compared to the January rate of 1193. This increase is attributed to an increase in battle casualties. Minor decreases were noted in the disease and nonbattle injury rates.

The disease component of the all causes admission rate for the FEC decreased from 886 in January to 850 in February. The decrease in the incidence of common respiratory diseases and influenza accounts primarily for the lower rate reported in February. Korea, Japan and PHILCOM (AF) had minor decreases in their admission rate for disease. MARBO and RYCOM reported increases; however, their rates remain considerably below the FEC rate and compare favorably with experiences in those commands in the past.

The nonbattle injury rate decreased from 255 in January to 221 in February. This decrease results from the lower incidence of cold injuries in Korea during the month. In Korea the rate decreased from 352 in January to 306 for February. PHILCOM (AF) had a sharp increase from 19 in January to 98; however, their strength is so small that a very few cases will cause such a fluctuation. The other major commands' experience in these admissions for the period were rather static.

A considerable increase in the admission rate of battle casualties was reported for February. The January rate was 52 as against 243 for this month. In Korea alone, the rate increased from 76 in January to 363 in February.

#### DAILY NON-EFFECTIVE RATE:

During an average day in February, Army personnel in the FEC had 51 non-effectives per 1000 strength. Only in September of 1950, at which time the rate was 57, has the command experienced a higher rate. An increase in admissions plus a longer retention of patients in Korea and Japan accounts for the rise in rate. The rate in Korea was 21 in February as against 16 in January; paralleling this increase was a decrease in Japan's rate from 141 in January to 131 in February. No significant change was noted in rates of other commands.

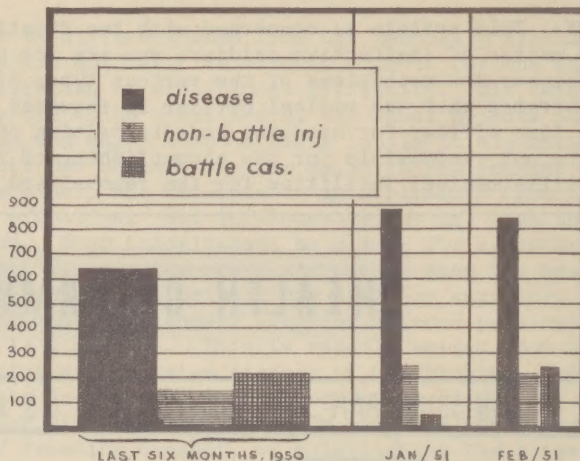
#### DISEASES:

**Common Respiratory Diseases and Influenza:** The rate of 155 cases per 1000 strength per year for February represents a considerable decrease from the rate of 203 reported in January. The FEC's lower rate for these diseases in February results from the experiences among troops in Korea and Japan. Korea's rate decreased from 234 in January to 183 in February; coexistent with this was Japan's decrease from 167 to 117 during the same period. Of the other major commands, PHILCOM (AF) and MARBO had relatively insignificant increases while RYCOM reported no change.

**Psychiatric:** The incidence of psychiatric conditions increased from a rate of 25 during January to 33 during February. This increase is attributed entirely to the incidence of these conditions among troops in Korea. As has been demonstrated in the past, with an increase in the number of battle casualties, an increase in the number of psychiatric cases may be expected. No particular change was reported in the rates for these conditions among the other major commands during the month.

**Malaria:** New malaria cases occurring in the command during February gave a rate of .9 as against

DISEASE, NON-BATTLE INJURY AND BATTLE CASUALTY  
ADMISSION RATES (per 1000 per year) U.S. ARMY PERSONNEL, FEC





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2.5 for the previous month. Of the major commands, perhaps the most significant change occurred in Korea, where the rate decreased from 3.4 in January to .79. Japan's rate for the month was .96. PHILCOM(AF)'s rate of 20 for the month was greatest; here again, with such a small strength, one or two cases cause a great fluctuation in their rate. The overall incidence of this disease compares favorably with past experience.

**Diarrhea and Dysentery:** A considerable decline in the number of intestinal diseases infections in the FEC was noted for February. The rate decreased from 20 for the preceding month to 15. 96% of all the cases reported occurred in Korea. MARBO and RYCOM reported no cases, while PHILCOM(AF) reported only 1. Korea's rate for these conditions for the month was 22.

**Infectious Hepatitis:** During February, infectious hepatitis occurred at a rate of 26 per 1000 strength per year. This represents a sharp increase over the previous month, at which time the rate was 16. The February rate is by far the highest rate so far reported for the FEC. The rates for the major commands for January and February are as follows: Korea 21 and 35, Japan 7.7 and 9.6, RYCOM 7.5 and 7.7, PHILCOM (AF) 9.6 and 20, and MARBO 0 and 0. 88% of all cases reported are from Korea.

**Venereal Diseases:** The rate for total venereal diseases for the command for February was 114 as compared to 113 for the previous month. In comparison, the rate for white troops was 104 as against 201 for colored troops. None of the major commands reported a significant change in these diseases during the month.

**Miscellaneous Diseases:** 2 cases of diphtheria were reported during February, 1 of which occurred in Korea, and the other in MARBO. There was very little change in the incidence rate of pneumonia during February, at which time the rate was 23 as compared to 24 for January. Practically all cases reported occurred among personnel in Korea, giving that command a rate of 29 as against 32 for January. During February, 7 cases of smallpox were reported among United Nations personnel other than Koreans. Six of these cases, with 2 deaths resulting, occurred in Korea. Of these 6 cases, 2 were among US Army, 2 US Marines, with 1 death, 1 US Navy, resulting in death, and 1 Philippine Armed Forces person. The seventh case for the month was a US civilian employee in Japan, and resulted in death.

**Cold Injuries:** A marked decrease in the incidence of cold injuries was experienced during February. The FEC rate was 60 as compared to 97 for January. For the same periods, Korea had rates of 143 and 90.

**Deaths:** 202 deaths among Army personnel were reported by medical treatment facilities in the FEC for the month of February. Of these, 144 occurred among battle casualties, 37 among non-battle injury cases and 21 resulted from diseases.

**EVACUATION:** Tabulated below are the number of patients (all types of personnel) evacuated from the major commands to the ZI during the 4-report weeks in February and the number of patients awaiting evacuation as of 23 February 1951:

	JAPAN	MARBO	PHILCOM (AF)	RYCOM	FEC
By Air	1,844	1	11	70	1,926
By Water	10	3	0	4	17
Total	1,854*	4	11	74	1,943
Pnts Awaiting Evacuation	136	6	2	14	158

(\*1,415 patients originated from Korea)

**HOSPITALIZATION:** The bed status as of 23 February 1951 was as follows: (These data cover all patients, Army, AF and others.)

	Bed Capacity		Operating		% Normal Bed	% of Operating
	Normal	Mobilization	Beds	Beds Occupd.	Capacity Occupd.	Beds Occupd.
JAPAN	9,550	10,310	9,550	11,305	118	118
KOREA	2,960		2,960	1,722	58	58
MARBO	200	200	200	31	16	16
PHILCOM (AF)	1,250	1,595	139	127	10	91
RYCOM	250	300	250	212	85	85
FEC	14,210	12,405	13,099	13,397	94	102

In Korea 11,735 operating beds are established for POW of which 10,199 are occupied.

## CORRECTION

Line 4 of Article XIII, "Gunshot Wound of Abdomen with Multiple Complications", 1 March 51, is incorrectly worded to read " $\frac{1}{4}$  gram". Correct to read " $\frac{1}{4}$  gr".



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The Chief Surgeon extends an invitation to all personnel of the Army Medical Services to prepare and forward, with view to publication, articles of professional or administrative nature. It is assumed that editorial privilege is granted. Copy should reach the Medical Section, General Headquarters, Far East Command, not later than the 10th of the month preceding the issue in which publication is desired.

Lt. John J. Griffin, Editor

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